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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,104	06/20/2005	Frans Leenhouts	NL02 1328 US	1574

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PHILIPS ELECTRONICS NORTH AMERICA CORPORATION
INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

NGUYEN, LAUREN

ART UNIT PAPER NUMBER

2809

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/540,104

Applicant(s)

LEENHOUTS ET AL.

Examiner

Lauren Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the 'external translector 15' (page 6, line 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: *all elements of figures 1-3*. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.

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(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1 and 3-7** are rejected under 35 U.S.C. 102(b) as being anticipated by **Kubo et al. (U.S. Patent Number 6,124,919)**.

7. With respect to **claim 1**, as shown in figures 1, 3 and 7(a)-7(b), **Kubo et al.** discloses a normally white super-twist nematic liquid crystal display device for multiplex operation (see at least column 6, lines 52-53), comprising:

- a liquid crystal cell essentially comprising a liquid crystal layer (7), being sandwiched between a front (5) and a rear substrate (1),
- an at least partly reflective film (2), arranged in proximity to said rear substrate, and
- a front optical stack (10, 11, and 15), arranged on a viewer's side of the front substrate (figure 3), the stack comprising one or more optical films, wherein the front optical stack consists essentially of a polarizer (11) and an optional light scattering film (15).

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8. With respect to **claims 3-7**, as shown in figures 1, 3 and 7(a)-7(b), **Kubo et al.** discloses:

- **(claim 3)** said at least partly reflective film (2) is a reflective film enabling reflective operation of the display device (see at least column 10, lines 43-48).
- **(claim 4)** said at least partly reflective film (2) is a transfective film enabling transfective operation of the display device (see at least column 10, lines 48-51).
- **(claim 5)** a rear optical stack (9 and 14), arranged on a back side of the liquid crystal layer, the stack comprising one or more optical films (9 and 14).
- **(claim 6)** said rear optical stack comprises a rear polarizer (14) and a compensation film (9), being arranged between the rear polarizer and the liquid crystal cell (figures 1 and 3).
- **(claim 7)** said at least partly reflective film (2) is arranged as an in-cell internal reflector between said front (5) and rear substrate (1).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kubo et al. (U.S. Patent Number 6,124,919)**.

11. With respect to **claim 2**, **Kubo et al.** discloses the limitations as shown in the rejection of **claim 1** above. **Kubo et al.** does not disclose the retardation of said liquid crystal layer is in the range of 500-750 nm.

However, **Kubo et al.**, in at least column 6, line 33-34, figures 1, 3, and 7(a)-7(b), discloses the retardation of said liquid crystal layer is set to 700-950 nm. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retardation of the liquid crystal layer with the teaching of **Kubo et al.** because such modification would provide a display with high contrast and therefore, the choices of optimum range can be obtained to achieve the highest contrast (see at least column 6, lines 38-39).

12. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kubo et al.** (U.S. Patent Number 6,124,919) in view of **Saiki et al.** (U.S. Patent Number 6,697,132).

13. With respect to **claim 8**, **Kubo et al.** discloses the limitations as shown in the rejection of **claim 1** above. **Kubo et al.** does not disclose said at least partly reflective film is arranged in said rear optical stack, essentially adjacent to said rear substrate.

However, **Saiki et al.**, in at least column 5 and 7, lines 9-19 and 54-58, respectively, and figure 3, discloses said at least partly reflective film (23) is arranged in said rear optical stack (21), essentially adjacent to said rear substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the partly reflective film of **Kubo et al.** with the teaching of **Saiki et al.** because such modification would be advantageous over adhering or peeling the optical stack to and off the liquid crystal cell (see at least columns 2 and 7, lines 42-50 and 35-38, respectively).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Akiyama et al. (U.S. Patent Number 6,577,360) discloses a liquid crystal display device having polarizing films disposed on both substrates. Hatanaka et al. (U.S. Patent Number

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6,404,471) discloses a reflection liquid crystal display device. Moriwaki et al. (U.S. Patent Number 6,661,483) discloses an LCD device.

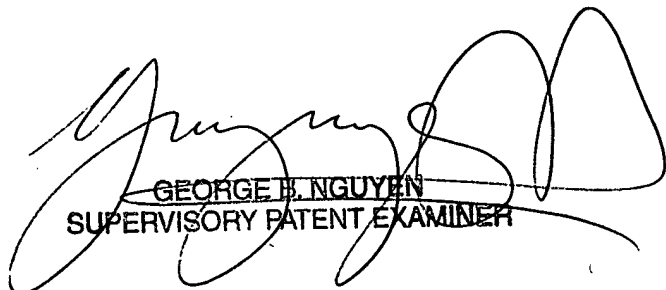
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lauren Nguyen

January 31, 2007


GEORGE B. NGUYEN
SUPERVISORY PATENT EXAMINER